

**ABSTRACT**

The present invention relates to the discovery, identification and  
5 characterization of nucleotides that encode novel substrate-targeting subunits of ubiquitin  
ligases. The invention encompasses nucleotides encoding novel substrate-targeting subunits  
of ubiquitin ligases: FBP1, FBP2, FBP3, FBP4, FBP5, FBP6, FBP7, FBP8, FBP9, FBP10,  
FBP11, FBP12, FBP13, FBP14, FBP15, FBP16, FBP17, FBP18, FBP19, FBP20, FBP21,  
10 FBP22, FBP23, FBP24, and FBP25, transgenic mice, knock-out mice, host cell expression  
systems and proteins encoded by the nucleotides of the present invention. The present  
invention relates to screening assays that use the novel substrate-targeting subunits to identify  
potential therapeutic agents such as small molecules, compounds or derivatives and  
analogues of the novel ubiquitin ligases which modulate activity of the novel ubiquitin  
15 ligases for the treatment of proliferative and differentiative disorders, such as cancer, major  
opportunistic infections, immune disorders, certain cardiovascular diseases, and  
inflammatory disorders. The invention further encompasses therapeutic protocols and  
pharmaceutical compositions designed to target ubiquitin ligases and their substrates for the  
treatment of proliferative disorders.  
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